WHAT IS CLAIMED IS:

1. A positive active material for a lithium secondary battery of which the surface is coated with a metal oxide, wherein the positive active material compound is selected from the group consisting of $Li_aNi_{1-x-y}Co_xM_yO_2$, $Li_aNi_{1-x-y}Co_xM_yO_{2-z}F_z$ and $Li_aNi_{1-x-y}Co_xM_yO_{2-z}S_z$, and M is a metal selected from the group consisting of Al, Mg, Sr, La, Ce, V, and Ti, and $0 \le x < 0.99$, $0.01 \le y \le 0.1$, $0.01 \le z \le 0.1$, and $1.00 \le a \le 1.1$.

2. A positive active material according to claim 1, wherein the metal oxide coated on the surface of the compound is an oxide of the metal selected from the group consisting of Mg, Si, Ti, Al, V, Co, K, Ca, Na, and B.

3. A positive active material according to claim 1, wherein the thickness of a layer coated on the surface of the compound is 1 to 100 nm.

4. A method of preparing the positive active material for a lithium secondary battery comprising the steps of:

    (a) mixing a $Ni_{1-x-y}Co_xM_y(OH)_2$ and a compound selected from the group consisting of LiOH, LiF and NaS in an equivalent ratio for 10 to 30 minutes in a mortar agitator (M is a metal selected from the group consisting of Al, Mg, Sr, La, Ce, V, and Ti, and wherein $0 \le x < 0.99$ and $0.01 \le y \le 0.1$);

    (b) heat-treating a mixture formed in the step a) to produce a compound selected the group consisting of the following formula 1, formula 2, and formula 3, at 700℃ to 900℃ for 15 to 20 hours, with dry air circulating in a gas atmosphere controlled furnace;

    (c) surface-treating with a metal alkoxide solution a compound selected

16

from the group consisting of the following 1 , formula 2, and formula 3 that is prepared in the step b), where the metal alkoxide solution is made from metal alkoxide power dissolved in alcohol;

(d) drying the surface-treated compound; and

(e) heat-treating a powder dried in the step d), under conditions of circulating dry air or O_2, of compound selected from the group consisting of the following formula 1, formula 2, and formula 3 that is surface-treated in the step c), wherein formula 1 is $Li_aNi_{1-x-y}Co_xM_yO_2$, formula 2 is $Li_aNi_{1-x-y}Co_xM_yO_{2-z}F_z$, formula 3 is $Li_aNi_{1-x-y}Co_xM_yO_{2-z}S_z$, and M is a metal selected from the group consisting of Al, Mg, Sr, La, Ce, V, and Ti, and wherein $0 \leq x < 0.99$, $0.01 \leq y \leq 0.1$, $0.01 \leq z \leq 0.1$, and $1.00 \leq a \leq 1.1$

5. A method according to claim 4, wherein the metal of the metal alkoxide is a metal selected from the group consisting of Al, Mg, Sr, La, Ce, V, and Ti.

6. A method according to claim 4, wherein the concentration of the metal alkoxide solution is 1 to 30 weight%.

7. A method according to claim 4, wherein the $Ni_{1-x-y}Co_xM_y(OH)_2$ (M is a metal selected from the group consisting of Al, Mg, Sr, La, Ce, V, and Ti and wherein $0 \leq x < 0.99$ and $0.01 \leq y \leq 0.1$) is prepared with a metal solution comprising a Ni-salt, Co-salt, and M-salt as a starting material.

8. A method according to claim 4, wherein the temperature of the heat-treatment in the step e) is 200 to 1000℃ and the duration of the heat-treatment is 2 to 30 hours.

17